Exhibit D

SYSTEMAX AND TIGERDIRECT'S PROPOSED CLAIM CONSTRUCTION AND SUPPORT FOR "SHOPPING CART COMPUTER"

Exhibit 2 – Defendants Systemax, Inc. and Tiger Direct, Inc.'s Preliminary Claim Construction Chart For Term "Shopping Cart Computer" As Used In U.S. Patent No. 5,715,314 ("the '314 Patent), and U.S. Patent No. 5,909,492 ("the '492 Patent")[1]

Claim Element(s)	Defendants' Construction	Support for Construction
Claim 34 and Its Dependent Claims of The '314 Patent		
34. A network-based sales system, comprising: at least one buyer computer for operation by a user desiring to buy products; at least one **shopping cart computer**; and a shopping cart database connected to said shopping cart computer; said buyer computer and said **shopping cart computer** being interconnected by a computer network; said buyer computer being programmed to receive a plurality of requests from a user to add a plurality of respective products to a shopping cart in said shopping cart database, and, in response to said requests to add said products, to send a plurality of respective	**shopping cart computer -** a computer processing data associated with one or more shopping carts but is not operated by an operator of a merchant computer	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004. "Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be

[1] Nothing in this Defendants' Preliminary Claim Construction Chart should cause a waiver of Defendants' invalidity defenses under 35 U.S.C. §112. Defendants expressly preserve their rights to continue to pursue their invalidity defenses under 35 U.S.C. §112 subsequent to the Court's Claim Construction.

Claim Element(s)	Defendants' Construction	Support for Construction
shopping cart messages to said **shopping cart computer** each of which comprises a product identifier identifying one of said plurality of products; said **shopping cart computer** being programmed to receive said plurality of shopping cart messages, to modify said shopping cart in said shopping cart database to reflect said plurality of requests to add said plurality of products to said shopping cart, and to cause a payment message associated with said shopping cart to be created; and said buyer computer being programmed to receive a request from said user to purchase said plurality of products added to said shopping cart and to cause said payment message to be activated to initiate a payment transaction for said plurality of products added to said shopping cart; said shopping cart being a stored representation of a collection of products, said shopping cart database being a		sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." **(emphasis added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K. Gifford and entitled "Digital Active Advertising," the entire disclosure of which is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and

Claim Element(s)	Defendants' Construction	Support for Construction
database of stored representations of collections of products, and said **shopping cart computer** being a computer that modifies said stored representations of collections of products in said database.		sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." 1:18-47 **(emphasis added.)** "The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to ensure that it was created by the payment computer (thereby establishing for the merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." 2: 3-18 **(emphasis added.)** "Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the**

Claim Element(s)	Defendants' Construction	Support for Construction
		operator of the payment computer."5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of products** that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." 7:19-20 **(emphasis added.)**

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		"The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." 7: 31-33 **(emphasis added.)** "With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user requests advertisements from the merchant computer] and possibly adds another product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer sends a fetch shopping cart request to the payment computer** (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate

Claim Element(s)	Defendants' Construction	Support for Construction
		setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. … The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. … **In order for the payment system to work,** the following steps **must** be accomplished**:** • Create principal account for merchant • Create keys for merchant • Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** **"**85. A network-based sales system in accordance with claim 34, further comprising: **a merchant computer that is interconnected with the buyer and shopping cart computers** by the computer network; and an advertising document database; wherein **the merchant computer is programmed to fetch an advertising document from the advertising document database**; wherein the advertising document database is local to the merchant computer." US 5,715,314 C1 at 3:43-53 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36

Claim Element(s)	Defendants' Construction	Support for Construction
		"The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the prospective customer.** To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated parties to occur efficiently**. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to**

Claim Element(s)	Defendants' Construction	Support for Construction
		the merchant are handled by the shopping cart mechanism. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.
35. A network-based sales system in accordance with claim 34, wherein said **shopping cart computer** is programmed to cause said payment message to be created before said buyer computer causes said payment message to be activated before said buyer computer causes said payment message to be activated.	See above	See above
49. A network-based sales system in accordance with claim 34, wherein the buyer computer activates the payment message by transmitting a message to **the shopping cart computer** that causes the payment message to be activated.	See above	See above

Claim Element(s)	Defendants' Construction	Support for Construction
74. A network-based sales system in accordance with claim 34, wherein the buyer computer activates the payment message by transmitting a message to **the shopping cart computer** that causes the payment message to be activated; wherein the shopping cart computer transmits a payment confirmation document to the buyer computer.	See above	See above
84. A network-based sales system in accordance with claim 34, wherein **the shopping cart computer**, in response to the plurality of shopping cart messages, causes an account name and password request message to be transmitted to the buyer computer.	See above	See above
Claim 39 and Its Dependent Claims of The '314 Patent		
39. A method of operating a shopping cart computer in a	**shopping cart computer -**	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must

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computer network comprising at least one buyer computer for operation by a user desiring to buy products, at least one **shopping cart computer**, and a shopping cart database connected to said shopping cart computer, said method comprising the steps of: receiving, at said **shopping cart computer**, a plurality of shopping cart messages sent to said **shopping cart computer** by said buyer computer in response to receipt of a plurality of requests from a user to add a plurality of respective products to a shopping cart in said shopping cart database, each of said shopping cart messages comprising a product identifier identifying one of said plurality of products; modifying said shopping cart in said shopping cart database to reflect said plurality of requests to add said plurality of products to	a computer processing data associated with one or more shopping carts but is not operated by an operator of a merchant computer	be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004. "Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." **(emphasis added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K.

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said shopping cart; and causing a payment message associated with said shopping cart to be created; said buyer computer being programmed to receive a request from said user to purchase said plurality of products added to said shopping cart and to cause said payment message to be activated to initiate a payment transaction for said plurality of products added to said shopping cart; said shopping cart being a stored representation of a collection of products, said shopping cart database being a database of stored representations of collections of products, and said **shopping cart computer** being a computer that modifies said stored representations of collections of products in said database.		Gifford and entitled "Digital Active Advertising," the entire disclosure of which is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." 1:18-47 **(emphasis added.)** "The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to

Claim Element(s)	Defendants' Construction	Support for Construction
		ensure that it was created by the payment computer (thereby establishing for the merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." 2: 3-18 **(emphasis added.)** "Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**."5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of products** that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a

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		product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." 7:19-20 **(emphasis added.)** "The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." 7: 31-33 **(emphasis added.)** "With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user requests advertisements from the merchant computer] and possibly adds another

Claim Element(s)	Defendants' Construction	Support for Construction
		product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer sends a fetch shopping cart request to the payment computer** (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. … The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. … **In order for the payment system to work,** the following steps **must** be

Claim Element(s)	Defendants' Construction	Support for Construction
		accomplished**:** • Create principal account for merchant • Create keys for merchant • Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** **"**85. A network-based sales system in accordance with claim 34, further comprising: **a merchant computer that is interconnected with the buyer and shopping cart computers** by the computer network; and an advertising document database; wherein **the merchant computer is programmed to fetch an advertising document from the advertising document database**; wherein the advertising document database is local to the merchant computer." US 5,715,314 C1 at 3:43-53 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36 "The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the**

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		prospective customer. To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated parties to occur efficiently**. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to the merchant are handled by the shopping cart mechanism**. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.
109. The method of claim 39, wherein the buyer	See above	See above

Claim Element(s)	Defendants' Construction	Support for Construction
computer activates the payment message by transmitting a message to the **shopping cart computer** that causes the payment message to be activated.		
134. The method of claim 39, wherein the buyer computer activates the payment message by transmitting a message to **the shopping cart computer** that causes the payment message to be activated; wherein **the shopping cart computer** transmits a payment confirmation document to the buyer computer.	See above	See above
144. The method of claim 39, wherein **the shopping cart computer**, in response to the plurality of shopping cart messages, causes an account name and password request message to be transmitted to the buyer computer.	See above	See above

Claim Element(s)	Defendants' Construction	Support for Construction
Claim 17 of The '492 Patent		
17. A network-based sales system, comprising: at least one buyer computer for operation by a user desiring to buy products; at least one **shopping cart computer**; and a shopping cart database connected to **the shopping cart computer**; the buyer computer and **the shopping cart computer** being interconnected by a public packet switched computer network; the buyer computer being programmed to receive a plurality of requests from a user to add a plurality of respective products to a shopping cart in the shopping cart database, and, in response to the requests to add the products, to send a plurality of respective shopping cart messages over	**shopping cart computer -** a computer processing data associated with one or more shopping carts but is not operated by an operator of a merchant computer	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004. "Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access**

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the network to **the shopping cart computer** each of which comprises a product identifier identifying one of the plurality of products and at least one of which comprises a universal resource locator; **the shopping cart computer** being programmed to receive the plurality of shopping cart messages, to modify the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart, and to cause a payment message associated with the shopping cart to be created, the payment message comprising a universal resource locator; and the buyer computer being programmed to receive a request from the user to purchase the plurality of products added to the shopping cart and to cause the payment message to be		**message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." The '314 Patent **(emphasis added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K. Gifford and entitled "Digital Active Advertising," the entire disclosure of which is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." The '314 Patent at 1:18-47 **(emphasis added.)**

Claim Element(s)	Defendants' Construction	Support for Construction
activated to initiate a payment transaction for the plurality of products added to the shopping cart; the shopping cart being a stored representation of a collection of products, the shopping cart database being a database of stored representations of collections of products, and **the shopping cart computer** being a computer that modifies the stored representations of collections of products in the database.		"The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to ensure that it was created by the payment computer (thereby establishing for the merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." The '314 Patent at 2: 3-18 **(emphasis added.)** "Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** The '314 Patent at 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment

Claim Element(s)	Defendants' Construction	Support for Construction
		computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of products** that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." The '314 Patent at 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." The '314 Patent at 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." The '314 Patent at 7:19-20 **(emphasis added.)** "The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." The '314 Patent at 7: 31-33 **(emphasis added.)**

Claim Element(s)	Defendants' Construction	Support for Construction
		"With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" The '314 Patent at 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user requests advertisements from the merchant computer] and possibly adds another product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer sends a fetch shopping cart request to the payment computer** (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" The '314 Patent at 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" The '314 Patent at 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must

Claim Element(s)	Defendants' Construction	Support for Construction
		know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. … The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. … **In order for the payment system to work,** the following steps **must** be accomplished**:** • Create principal account for merchant • Create keys for merchant • Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36 "The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the**

Claim Element(s)	Defendants' Construction	Support for Construction
		prospective customer. To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated parties to occur efficiently**. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to the merchant are handled by the shopping cart mechanism**. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.
Claim 18 of The '492 Patent		

Claim Element(s)	Defendants' Construction	Support for Construction
18. A method of operating **a shopping cart computer** in a public packet switched computer network comprising at least one buyer computer for operation by a user desiring to buy products, at least one **shopping cart computer**, and a shopping cart database connected to **the shopping cart computer**, the method comprising the steps of: receiving, at **the shopping cart computer**, a plurality of shopping cart messages sent over the network to **the shopping cart computer** by the buyer computer in response to receipt of a plurality of requests from a user to add a plurality of respective products to a shopping cart in the shopping cart database, each of the shopping cart messages comprising a product identifier identifying one of the plurality of products and at least one of which	**shopping cart computer -** a computer processing data associated with one or more shopping carts but is not operated by an operator of a merchant computer	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004. "Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." The '314 Patent **(emphasis**

Claim Element(s)	Defendants' Construction	Support for Construction
comprises a universal resource locator; modifying the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart; and causing a payment message associated with the shopping cart to be created, the payment message comprising a universal resource locator; the buyer computer being programmed to receive a request from the user to purchase the plurality of products added to the shopping cart and to cause the payment message to be activated to initiate a payment transaction for the plurality of products added to the shopping cart; the shopping cart being a stored representation of a collection of products, the shopping cart database being a database of stored representations of		**added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K. Gifford and entitled "Digital Active Advertising," the entire disclosure of which is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." The '314 Patent at 1:18-47 **(emphasis added.)** "The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer**

Claim Element(s)	Defendants' Construction	Support for Construction
collections of products, and **the shopping cart computer** being a computer that modifies the stored representations of collections of products in the database.		**having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to ensure that it was created by the payment computer (thereby establishing for the merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." The '314 Patent at 2: 3-18 **(emphasis added.)** "Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** The '314 Patent at 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of**

Claim Element(s)	Defendants' Construction	Support for Construction
		products that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." The '314 Patent at 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." The '314 Patent at 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." The '314 Patent at 7:19-20 **(emphasis added.)** "The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." The '314 Patent at 7: 31-33 **(emphasis added.)** "With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a

Claim Element(s)	Defendants' Construction	Support for Construction
		shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" The '314 Patent at 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user requests advertisements from the merchant computer] and possibly adds another product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer sends a fetch shopping cart request to the payment computer** (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" The '314 Patent at 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" The '314 Patent at 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. …

Claim Element(s)	Defendants' Construction	Support for Construction
		The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. … **In order for the payment system to work,** the following steps **must** be accomplished**:** • Create principal account for merchant • Create keys for merchant • Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36 "The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the prospective customer.** To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated**

Claim Element(s)	Defendants' Construction	Support for Construction
		parties to occur efficiently. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to the merchant are handled by the shopping cart mechanism**. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.
Claim 35 of The '492 Patent		
35. A network-based sales system, comprising: at least one buyer computer for operation by a user	**shopping cart computer -** a computer processing data associated with one or more shopping carts but is not	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to

Claim Element(s)	Defendants' Construction	Support for Construction
desiring to buy products; at least one **shopping cart computer**; and a shopping cart database connected to the shopping cart computer; the buyer computer and **the shopping cart computer** being interconnected by a public packet switched computer network; the buyer computer being programmed to receive a plurality of requests from a user to add a plurality of respective products to a shopping cart in the shopping cart database, and, in response to the requests to add the products, to send a plurality of respective shopping cart messages over the network to **the shopping cart computer** each of which comprises a product identifier identifying one of the plurality of products; **the shopping cart computer** being programmed to receive the plurality of shopping cart messages, and to modify the	operated by an operator of a merchant computer	users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004. "Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." The '314 Patent **(emphasis added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K. Gifford and entitled "Digital Active Advertising," the entire disclosure of which

Claim Element(s)	Defendants' Construction	Support for Construction
shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart; and the buyer computer being programmed to receive a request from the user to purchase the plurality of products added to the shopping cart and to cause a payment message to be activated to initiate a payment transaction for the plurality of products added to the shopping cart; the shopping cart being a stored representation of a collection of products, the shopping cart database being a database of stored representations of collections of products, and **the shopping cart computer** being a computer that modifies the stored representations of collections of products in the database.		is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." The '314 Patent at 1:18-47 **(emphasis added.)** "The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to ensure that it was created by the payment computer (thereby establishing for the

Claim Element(s)	Defendants' Construction	Support for Construction
		merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." The '314 Patent at 2: 3-18 **(emphasis added.)** "Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** The '314 Patent at 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of products** that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." The '314 Patent at 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a

Claim Element(s)	Defendants' Construction	Support for Construction
		product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." The '314 Patent at 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." The '314 Patent at 7:19-20 **(emphasis added.)** "The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." The '314 Patent at 7: 31-33 **(emphasis added.)** "With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" The '314 Patent at 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user

Claim Element(s)	Defendants' Construction	Support for Construction
		requests advertisements from the merchant computer] and possibly adds another product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer sends a fetch shopping cart request to the payment computer** (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" The '314 Patent at 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" The '314 Patent at 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. … The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. …

Claim Element(s)	Defendants' Construction	Support for Construction
		In order for the payment system to work, the following steps **must** be accomplished**:** • Create principal account for merchant • Create keys for merchant • Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36 "The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the prospective customer.** To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated parties to occur efficiently**. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See

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		SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to the merchant are handled by the shopping cart mechanism**. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.
Claim 36 of The '492 Patent		
36. A method of operating **a shopping cart computer** in a public packet switched computer network comprising at least one buyer computer for operation by a user desiring to buy products, at least one	**shopping cart computer -** a computer processing data associated with one or more shopping carts but is not operated by an operator of a merchant computer	"Second, it is not clear which other computer the Defendants are trying to distinguish the 'shopping cart computer' from, when they say it must be 'separate from a computer providing product descriptions to a user.' Does this mean the buyer computer (which displays descriptions to users) or the merchant computer (which causes product descriptions to be sent to the user)? Because of this lack of clarity, the Defendants' proposed construction would render the claims indefinite." *Soverain's Claim Construction Brief* at 28-29, Nov. 16, 2004.

Claim Element(s)	Defendants' Construction	Support for Construction
shopping cart computer, and a shopping cart database connected to **the shopping cart computer,** the method comprising the steps of: receiving, at **the shopping cart computer**, a plurality of shopping cart messages sent over the network to **the shopping cart computer** by the buyer computer in response to receipt of a plurality of requests from a user to add a plurality of respective products to a shopping cart in the shopping cart database, each of the shopping cart messages comprising a product identifier identifying one of the plurality of products; and modifying the shopping cart in the shopping cart database to reflect the plurality of requests to add the plurality of products to the shopping cart; the buyer computer being programmed to receive a request from the user to		"Story: 'We are building a payment system for the Web. Our novel approach works with today's clients and **doesn't let the merchants see the client's payment credentials**.' " See SVN2-0040037 of SVN2-0040037-42 (**emphasis added**). "Abstract A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. **The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer.** The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product." The '314 Patent **(emphasis added.)** "U.S. patent application Ser. No. 08/168,519, filed Dec. 16, 1993 by David K. Gifford and entitled "Digital Active Advertising," the entire disclosure of which is hereby incorporated herein in its entirety by reference, now abandoned, describes a network sales system that includes a plurality of buyer computers, a plurality of merchant computers, and a payment computer. **A user at a buyer computer asks to have advertisements displayed, and the buyer computer**

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purchase the plurality of products added to the shopping cart and to cause a payment message to be activated to initiate a payment transaction for the plurality of products added to the shopping cart; the shopping cart being a stored representation of a collection of products, the shopping cart database being a database of stored representations of collections of products, and **the shopping cart computer** being a computer that modifies the stored representations of collections of products in the database.		**requests advertisements from a merchant computer, which sends the advertisements to the buyer computer. The user then requests purchase of an advertised product, and the buyer computer sends a purchase message to the merchant computer. The merchant computer constructs a payment order that it sends to the payment computer, which authorizes the purchase and sends an authorization message to the merchant computer. When the merchant computer receives the authorization message it sends the product to the buyer computer.** **The above-mentioned patent application also describes an alternative implementation of the network sales system in which, when the user requests purchase of an advertised product, the buyer computer sends a payment order directly to the payment computer, which sends an authorization message back to the buyer computer** that includes an unforgeable certificate that the payment order is valid. The buyer computer then constructs a purchase message that includes the unforgeable certificate and sends it to the merchant computer. When the merchant computer receives the purchase request it sends the product to the buyer computer, based upon the pre-authorized payment order." The '314 Patent at 1:18-47 **(emphasis added.)** "The invention provides a simple design architecture for the network sales system that **allows the merchant computer to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the payment computer** to ensure that the user is authorized to purchase the product **and without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products**. Rather, when the merchant computer receives an access message from the buyer computer identifying a product to be purchased, the merchant computer need only check the access message to ensure that it was created by the payment computer (thereby establishing for the merchant computer that the buyer is authorized to purchase the product), and then the merchant computer can cause the product to be sent to the buyer computer who has been authorized to purchase the product." The '314 Patent at 2: 3-18 **(emphasis added.)**

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		"Brief Description of the Drawings FIG. 1 is a block diagram of a network sales system **in accordance with the present invention.** FIG. 2 (2-A through 2-I) is a flowchart diagram **illustrating the operation of a purchase transaction in the network sales system of FIG. 1.** FIG. 3 (3-A through 3-B) is a flowchart diagram illustrating the use of a shopping cart for the purchase of products **in connection with the network sales system of FIG. 1.** FIG. 4 (4-A through 4-C) is a flowchart diagram illustrating the operation of a smart statement **in the network sales system of FIG. 1."** The '314 Patent at 3:58-4:3 **(emphasis added.)** "The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 45-47 **(emphasis added.)** "Payment computer 16 has access to a settlement database 22 in which payment computer 16 can record details of purchase transactions. The products may be organized into various 'domains' of products, and **payment computer 16 can access settlement database 22 to record** and retrieve records of purchases of products falling within the various domains**. Payment computer 16 also has access to a shopping cart database 21 in which a 'shopping cart' of products** that a user wishes to purchase can be maintained as the user shops prior to actual purchase of the contents of the shopping cart." The '314 Patent at 5:5-15 **(emphasis added.)** "The user browses through the advertising document and eventually requests a product (step 32). This results in the buyer computer sending payment URL A to the payment computer (step 34). Payment URL A includes **… a merchant computer identifier that represents merchant computer 14**, a merchant account identifier that represents the particular merchant account to be credited

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		with the payment amount, …. The payment URL authenticator is a hash of other information in the payment URL, the hash being defined by **a key shared by the merchant and the operator of the payment computer**." The '314 Patent at 5: 26-47 **(emphasis added.)** "In an alternative embodiment, step 34 consists of the buyer computer sending a purchase product message to the merchant computer, and the merchant computer provides payment VRL[URL] A to the buyer computer in response to the purchase product message. In this alternative embodiment, payment URL A contains the same contents as above. The buyer computer then sends the payment URL A it has received from the merchant computer to the payment computer." The '314 Patent at 5: 48-56 **(emphasis added.)** "… **the payment computer creates an access URL (step 80) that includes a merchant computer identifier** …." The '314 Patent at 7:19-20 **(emphasis added.)** "The payment computer then sends a redirect to access URL to the buyer computer (step 90), which sends the access URL to the merchant computer (step 92)." The '314 Patent at 7: 31-33 **(emphasis added.)** "With reference now to FIG. 3, when the merchant computer sends the advertising document to the buyer computer, the user may request that a product be added to a shopping cart in the shopping cart database rather than request that the product be purchased immediately. The buyer computer sends a shopping cart URL to the payment computer (step 108), **the shopping cart URL including … a merchant computer identifier** …" The '314 Patent at 7: 55- 8:2 **(emphasis added.)** "The user then either requests more advertisements (step 24 in FIG. 2) [user requests advertisements from the merchant computer] and possibly adds another product to the shopping cart, requests display of the shopping cart (step 116), or requests purchase of the entire contents of the shopping cart (step 124). If the user requests display of the shopping cart (step 116), the **buyer computer**

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		sends a fetch shopping cart request to the payment computer (step 118), and **the payment computer and buyer computer** (step 119) perform steps analogous to steps 64-81. The **payment computer returns the contents of the shopping cart to the buyer computer** (step 120), which displays the contents of the shopping cart (step 122). If the user requests that the entire contents of the shopping cart be purchased (step 124) the buyer computer causes the payment URL for the shopping cart to be activated (step 126) …" The '314 Patent at 8: 14-28 **(emphasis added.)** " … the payment URL is p**rocessed in a manner analogous** to the processing of payment URLs **for individual products** (beginning with step 36 in FIG. 2)" The '314 Patent at 8: 28-32 **(emphasis added.)** "Merchant Account Each merchant has an entry in the principal table in the payment database. …This information is revealed to customers in the appropriate setting. … The secretkey table … Three parties need to know a merchant's keys. The merchant must know, in order to sign payment URLs. The payment system must know, in order to validate payment URLs and to sign access URLs, and the merchant server must know, in order to validate access URLs. (n,b, **There is no particular reason to use the same keys for payment and for access**. … The merchantserver table In an environment where there are multiple merchant servers, the merchant server table tells the payment system which servers are hosting a particular merchant. … **In order for the payment system to work,** the following steps **must** be accomplished**:** • Create principal account for merchant • Create keys for merchant

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		• Load merchant server with merchant keys • Use merchant's keys to generate payment URLs" App. E of the '314 Patent, SOV 000146-148 **(emphasis added.)** "OM Vision," See SOV1627 of SOV1624-36 "The basic idea is to have-pay-per-page links in the merchant's database that point to **our payment system** and encode payment details (these are called payment URLs**). Our payment system** processes the payment order, and returns an HTTP redirect to deflect the client to the real URL on **the merchant's server**. The redirect URL is called the access URL. The effect for the user is a seamless link from one merchant page to another merchant page." See SOV1721 of SOV1719-39 **(emphasis added.)** " To be successful in creating an electronic marketplace the payment system must address the following needs -<u>It must be designed to work in open and untrusted networks.</u> **Currently systems require a prior relationship between the merchant and the prospective customer.** To establish a broad market the payment system must enable any user to freely choose any merchant in the same way as he or she would shop in a traditional marketplace. **The cost of establishing a buyer's payment credentials must be reduced sufficiently to permit individual transactions between unaffiliated parties to occur efficiently**. … Open market's payment system is the only existing system hat meets all these requirements. **The architecture permits unaffiliated merchants to accept payment from any buyer using any means of payment that is acceptable to both parties**." See SOV1749-1750 of SOV1740-86 **(emphasis added.)** "**no direct communication** … p.a. … **merchant talks with payment … a necessitated special connections between** … clearly partitioning

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		problem … allows us to use existing widely available software …" See SOV1835 of SOV1835-39 **(emphasis added.)** "2. **How do orders get placed at the merchant in a reliable way**: Right now, **"hard goods" which require orders to be transmitted to the merchant are handled by the shopping cart mechanism**. When a shopping cart is purchased, a database field associated with the cart transitions from state o to state 1, which means the total amount has been recorded in the payment system. **Some as yet unnamed mechanism is supposed to move the field from state 1 to state 2 (order entered) when the order has made it to the merchant**." See SOV1848 of SOV1848-1849 and SOV39754 of SVN2-0039753-55 **(emphasis added.)** See also "Payment System Componets," SVN2-0039770-76.